

ABSTRACT

A device for dispensing liquids includes one or more liquid outlet means carried on a movable head. The device forms part of an automated excision apparatus for cutting biomolecule spots from an array of such spots carried in a gel. The head is mounted on an automated motion control system to allow for movement of the head in X, Y, Z directions under the control of a control means. A displacement means for causing the dispensing of liquid from the one or more liquid outlet means of the device is also carried by the moveable head carrying the liquid delivery outlets allowing the length of the tubing between the outlet and the aspiration device, typically a syringe, to be much shorter. This means that swelling and contraction of the tube is minimized during liquid handling operations which means more accurate delivery of specified volumes through the outlet. The syringes and the outlets are mounted on opposite sides of an axis of movement of the apparatus, keeping the machine compact. Typically the axis will be a horizontal X or vertical Y axis defined by a beam or the like which supports the movable head.